

Remarks

The non-final Office Action dated March 14, 2008 lists the following rejections: claims 3 and 4 stand rejected under 35 U.S. C. § 112(2); and claims 1-12 stand rejected under 35 U.S.C. § 103(a) over Ricketson *et al.* (U.S. Patent No. 5,307,978) in view of Sabyeying (U.S. Patent No. 6,062,459).

Applicant respectfully traverses the § 112(2) rejection of claims 3 and 4 because the Office Action fails to provide any detail regarding why these claims are allegedly indefinite. The Office Action simply states that it is unclear what is meant by “facing away from”. Applicant submits that it would be clear to the skilled artisan that the further row of lead frames is located on the side of the first row facing away from the second row (*i.e.*, that the further row is on the opposite side of the first row from the second row). For illustrative purposes, reference is made with respect to claim 3 to Applicant’s Figure 5, which shows a row of lead frames 21, 26, 29 and 34 (*e.g.*, the first row), another row of lead frames 27, 28 and 35 (*e.g.*, the second row), and an additional row of lead frames 22, 25 and 30 (*e.g.*, the further row). Applicant is therefore unable to fully appreciate the basis for the Office Actions’ confusion regarding claims 3 and 4. In an effort to facilitate prosecution and without acquiescence, Applicant has amended claims 3 and 4 to replace “facing away” with the word opposite. Accordingly, Applicant requests that the § 112(2) rejection of claims 3 and 4 be withdrawn.

Applicant respectfully traverses the § 103(a) rejection of claims 1-12 because the cited combination does not correspond to the claimed invention which includes, for example, aspects directed to a second clamp that clamps the leads of n adjacent lead frames of a second row of lead frames. The Office Action erroneously asserts that Ricketson’s indexing head 16 with jaw mechanism 40 corresponds to the claimed second claim. Ricketson’s indexing head 16 with jaw mechanism 40 does not clamp the leads of any of lead frames 10, instead the indexing head 16 grasps a portion of the edge 12 of a lead frame 10 opposite a bonding site and moves the lead frame and its bonding site to the work station 15. *See, e.g.*, Figure 2 (reproduced below), Col. 18-29, and Col. 5:29-40.

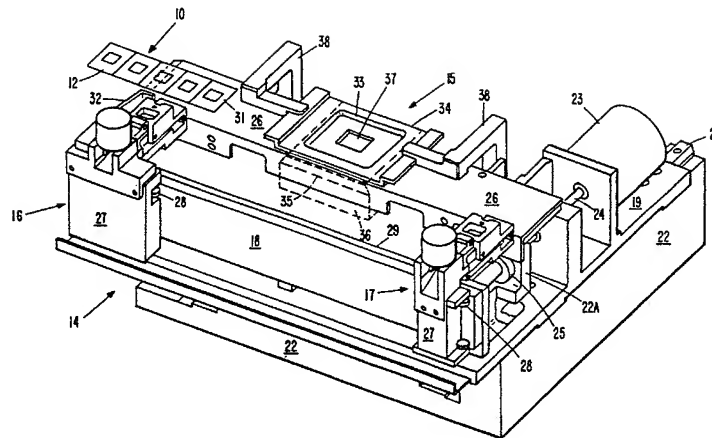


FIGURE 2 of Ricketson

The upper clamp plate 34 and the lower clamp plate 35 of the work station 15 then clamps the lead frame 10 in the correct portion for a bonding operation. *See, e.g.*, Col. 4:35-50. Thus, the cited portions of Ricketson teach that upper and lower clamp plates 34 and 35 (*i.e.*, the Office Action's alleged first clamp) clamp the leads of lead frame 10, not Ricketson's indexing head 16 with jaw mechanism 40 which simply grasps a portion of the edge 12 of the lead frame 10 to move it in position to be clamped by the upper and lower clamp plates.

Moreover, the Office Action acknowledges that Ricketson does not teach more than one row of lead frames (*e.g.*, first and second rows as claimed). The Office Action then cites to Sabyeying's clamp 100 for bonding two rows of lead frames 115 and IC components 117. *See, e.g.*, Figure 2 (reproduced below), Col. 4:3-15.

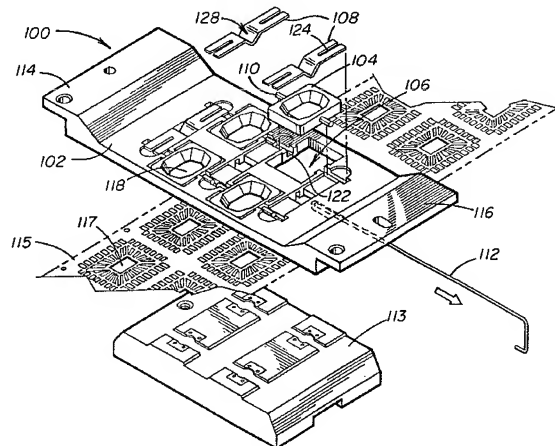


FIGURE 2 of Sabyeying

The cited portions of Sabyeying teach a stationary clamp 100 that clamps two lead frames 115 in each row; however, Sabyeying does not mention any second clamp. It appears that the Office Action is proposing to replace Ricketson's upper and lower clamp plates

34 and 35 (*i.e.*, the Office Action's alleged first clamp) with Sabyeying's clamp 100 such that Ricketson's work holder 14 could operate on two rows of lead frames. Applicant submits that such a combination would result in both rows of lead frames being clamped by the same stationary clamp (*i.e.*, clamp 100), in contrast to the claimed invention which has a first stationary clamp that clamps the first row and a second movable clamp that clamps the second row. Should the Office Action have envisioned some, as of yet unidentified, combination of the references, Applicant requests clarification, a showing of support and an opportunity to respond pursuant to M.P.E.P. § 706.07 ("The examiner should never lose sight of the fact that in every case the applicant is entitled to a full and fair hearing, and that a clear issue between applicant and examiner should be developed, if possible, before appeal.").

The Office Action further acknowledges that Ricketson does not teach that indexing head 16 with jaw mechanism 40 clamp the leads of a second row of lead frames. The Office Action then erroneously attempts to assert correspondence to the claimed invention by asserting that Ricketson's indexing head 16 with jaw mechanism 40 "would be capable of" clamping the lead of the second row. Applicant submits that "capable of" is not the standard required to support a rejection. Instead, the prior art must actually teach or suggest each aspect of the claimed invention. In this instance, neither of the cited references teaches a second clamp that clamps the leads of lead frames of a second row. Thus, Applicant submits that any combination of the Ricketson and Sabyeying references that includes such aspects would appear to be improperly based upon hindsight reconstruction using Applicant's disclosure as a template. *See, e.g.*, M.P.E.P. § 2145.

In view of the above, the cited combination does not correspond to the claimed invention. Accordingly, the § 103(a) rejection of claims 1-12 is improper and Applicant requests that it be withdrawn.

Applicant further traverses the § 103(a) rejection of claims 1-6 and 11 because the cited combination does not correspond to the claimed invention which includes, for example, aspects directed to wirebonding the leads of the *n* lead frames of the second row to the corresponding semiconductor products while the first clamp is released. The Office Action asserts that Ricketson's upper clamp plate 34 and lower clamp plate 35 correspond to the claimed first clamp; however, Ricketson does not teach that any

wirebonding is performed while upper clamp plate 34 and lower clamp plate 35 are released. *See, e.g.*, Col. 6:65 to Col. 7:27. Moreover, the cited portions of the Sabyeying reference also do not teach that any wirebonding is performed while clamp 100 is released. *See, e.g.*, Figure 2 and Col. 4:3-15. Regarding claim 11, the Office Action improperly asserts that claim 11 is directed to “a method of intended use for the apparatus.” Instead claim 11 recites that “the wirebonding tool is adapted to perform a wirebonding operation while the first clamp is released.” Thus, the Office Action has improperly failed to address claim 11. Accordingly, the § 103(a) rejection of claims 1-4 and 11 is improper and Applicant requests that it be withdrawn.

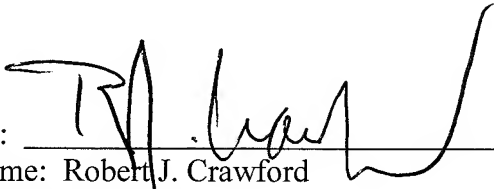
Applicant further traverses the § 103(a) rejection of claim 2 because the Office Action appears to have misinterpreted aspects of the claim directed to the n lead frames of the first row leading the n lead frames of the second row of one frame pitch. For illustrative purposes, reference is made to Applicant’s Figure 5, which shows a row of lead frames 21, 26, 29 and 34 (*e.g.*, the first row) with lead frames 21 and 26 being clamped by clamp 4 (*e.g.*, the first clamp), and another row of lead frames 27, 28 and 35 (*e.g.*, the second row) with lead frames 27 and 28 being clamped by clamp 5 (*e.g.*, the second clamp). The lead frames clamped by the first clamp (*e.g.*, 21 and 26) lead the lead frames clamped by the second clamp (*e.g.*, 27 and 28) as seen in the index direction (*i.e.*, the X direction). The cited portions of the Ricketson and Sabyeying references do not teach any such clamping of lead frames of first and second rows by respective first and second clamps. Accordingly, the § 103(a) rejection of claim 2 is improper and Applicant requests that it be withdrawn.

In view of the remarks above, Applicant believes that each of the rejections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Peter Zawilski, of NXP Corporation at (408) 474-9063 (or the undersigned).

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